

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference P81815PC00CF	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/PEA/416)	
International application No. PCT/GB 03/04323	International filing date (day/month/year) 07.10.2003	Priority date (day/month/year) 22.10.2002
International Patent Classification (IPC) or both national classification and IPC E01B9/40		
Applicant PANDROL LIMITED et al.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 5 sheets, including this cover sheet.

☐ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of sheets.

3. This report contains indications relating to the following items:

I ☒ Basis of the opinion

II ☐ Priority

III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability



IV ☐ Lack of unity of invention

V ☒ Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

VI ☐ Certain documents cited

VII ☐ Certain defects in the international application

VIII ☐ Certain observations on the international application

Date of submission of the demand 22.03.2004	Date of completion of this report 14.07.2004
Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized Officer Scharl, W Telephone No. +49 89 2399-2489 <div style="text-align: right;">  </div>

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International application No. PCT/GB 03/04323

I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

Description, Pages

1-7 as originally filed

Claims, Numbers

1-21 as originally filed

Drawings, Sheets

1/6-6/6 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
☐ the language of publication of the international application (under Rule 48.3(b)).
☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority in written form.
☐ furnished subsequently to this Authority in computer readable form.
☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
☐ the claims, Nos.:
☐ the drawings, sheets:

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5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	1-21
	No: Claims	
Inventive step (IS)	Yes: Claims	1-21
	No: Claims	
Industrial applicability (IA)	Yes: Claims	1-21
	No: Claims	

2. Citations and explanations

see separate sheet

1. The closest prior art is described on page 1 of the present application and concerns a method of attaching a rail clip anchoring device to a railway rail support, according to which method rail clip anchoring devices or "shoulders" are attached to steel baseplates by using separate fasteners, for example bolts and nuts, or by welding.
2. The object of the present invention is to solve the problems arising with such known methods, and to reduce costs to fasten the shoulder to the baseplate without the additional expense of a separate fastening component, and to keep machining of either the baseplate or the shoulder to a minimum.
3. This is mainly accomplished in that a boss, protruding from the bottom of a body of the anchoring device, is inserted into a hole passing through the support until said body abuts the support surface. Then the steel around the hole is compressed, while the anchoring device is held in place, so that the compressed steel flows plastically against the boss within the hole, until the force thereby applied to the boss brings about elongation thereof, whereby the boss undergoes an elastic set which clamps the boss to the support.
4. Such a method is, in respect of the available prior art, novel in concept, and, moreover, there is no teaching in the available prior which could have led the skilled person to the method claimed in claim 1.

The subject-matter of claim 1 is therefore both novel and involves an inventive step. The method claimed is also industrially applicable.

5. This is also the case with
 - (a) the rail clip anchoring device defined in independent claim 12, for use with the aforementioned method, said device having a body and a protruding boss with at least one recess in its flank, the recess comprising a single non-helical groove extending around the boss; and

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- (b) the railway rail fastening assembly defined in independent claim 16, said assembly comprising
a steel railway rail support having two holes therethrough, and two rail clip anchoring devices of the aforementioned type, the boss of a rail clip anchoring device extending into a respective one of the said holes in the support, and said boss having an elastic set whereby the boss is clamped to the support.
6. Therefore, independent claims 1, 12 and 16 meet the requirements of Article 33(2), (3) and (4) PCT.
7. Dependent claims 2 to 11, 13 to 15, and 17 to 21 describe further embodiments of the method of claim 1, of the rail clip anchoring device of claim 12, and of the railway rail fastening assembly of claim 16. Therefore, said dependent claims meet also the requirements of Article 33 PCT.
8. The features of the claims are not provided with reference signs placed in parentheses (Rule 6.2(b) PCT).